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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,540	03/23/2004	Yusuke Ota	9319S-000698	3767

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EXAMINER	
MA, CALVIN	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
04/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/807,540	OTA, YUSUKE	
	Examiner	Art Unit	
	CALVIN C. MA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-4 and 9-11* is/are allowed.

6)☒ Claim(s) *5,7 and 8* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: the article 'the' in the beginning of the fourth line, should be referring to a previously occurred concept, and since no mention of sleeping signal takes place in the parent claim 5, the article of 'the' should be change to 'a'. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (U.S.P.G. Pub 2002/0093480) in view of Glen et al. (U.S. Patent 6,067,083).

As to claim 5, Mizutani teaches a data driver (11) for driving data lines (11) of an active matrix type display panel, comprising:

A stopping signal (i.e. whole reset timing 102) for stopping an image display of the display panel with a frame pulse (i.e. the frame 11 in figure 9 stops with the whole reset timing 102) (see Fig. 9, [0101]);

An OFF data output control circuit (i.e. whole reset power source) that outputs an OFF data output control signal for outputting a drive voltage corresponding to a predetermined gray scale value to the data lines based on the display control signal during a second frame period that includes a second and subsequent frames, the second frame being the next frame after a first frame where the display stopping signal is input; and

A drive circuit (i.e. the LC driving circuit 23) that outputs the drive voltage corresponding to the predetermined gray scale value to the data lines (i.e. since the LC driving circuit control the voltage to the LC panel and the LC panel has gray scale values the voltage must be given from the driving unit) (see Fig. 2, 8, [0069], [0101])

The drive circuit outputting the drive voltage to the data lines based on the OFF data output control signal during the second frame period (F21), and outputting a non-display voltage to the data lines after the second frame period ends (i.e. the whole reset signal comes after the second frame F21 and the display stops in F22) (see Fig. 9, [0101]).

However, Mizutani does not explicitly teach a first and second synchronization circuit. Glen teaches a first frame synchronization circuit (i.e. the v-sync delay circuit 83 outputs a vertical sync signal which is a display control signal, controlling the vertical scanning of the screen) that outputs a display control signal, which synchronized a

display that specifies a vertical scan period of the display panel; a second frame synchronization circuit (i.e. the h-sync delay circuit 81 outputs a vertical sync signal which is a display control signal, controlling the screen) that outputs scan control signals, which synchronizes the display control signal with the frame pulses (i.e. since both synchronization circuit must be synchronized with the frame pulse to allow the proper loading and scanning of the display) (see Fig. 2, Col. 4, Lines 10-24);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the synchronization structures of Glen in addition to the display system of Mizutani in order to, "making video graphics circuits more efficient." (Glen col. 2, lines 27-34).

As to claim 7, Mizutani teaches the display system according to claim 5, wherein the display stopping signal is at least one of: an initializing signal (whole reset timing 102) for the data driver; in which drive for the data lines is stopped (see [100],[101],[102]).

As to claim 8, Mizutani teaches the display system according to claim 5, wherein a drive voltage corresponding to the predetermined gray scale value is a drive voltage corresponding to gray scale value of 0 (black gradation, see [0101]).

Allowable Subject Matter

4. Claims 1-4 and 9-11 are allowed.

5. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed June 5, 2007 have been fully considered but they are not persuasive.

The applicant argues with respect to claim 5, Mizutani in view of Glen fails to show, teach, or suggest the limitation of claim 5 and its dependent claim. The examiner disagrees. Since claim 5 did not mentions a sleep signal being a display stopping signal the whole reset timing pulse shown in Figure 9 of Mizutani (U.S.P.G. Pub:2002/0093480) still read on the limitation. Since the display stopping signal in its broadest interpretation can mean that the performance of the display is ceased, this means that the reset can be interpreted as a stoppage of normal operation of a display and therefore be considered equivalent to a display stoppage signal.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Huang et al. (US Patent: 6,819,310) is cited to teach a bi-stable display system.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Calvin Ma whose telephone number is (571)270-1713. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanh Nguyen/
Supervisory Patent Examiner, Art Unit 2629

Calvin Ma
March 26, 2008